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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,630	08/10/2000	Kazuhiro Kusama	566.38876X00	5841

20457 7590 01/07/2003

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EXAMINER	
CHANCE, JANET D	
ART UNIT	PAPER NUMBER

3626

DATE MAILED: 01/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/635,630	KUSAMA ET AL.
	Examiner	Art Unit
	Janet D. Chance	3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1)  Responsive to communication(s) filed on 10 August 2000.

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4)  Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-11 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some \* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1)  Notice of References Cited (PTO-892)

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Notice to Applicant***

1. This communication is in response to the application filed 10 August 2000. Claims 1-11 are pending. The IDS statement filed 10 August 2000 has been entered and considered.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Element 2904 on page 37, line 25. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference signs 2109 and 2118 on Figure 11, 2504 on Figure 12, 2120-2124 and 1627-1630 on Figure 15, 2803 on Figure 19, 2905-2906 on Figure 20, 3001 on Figure 21, 2210 on Figure 22, and 3206 on Figure 24. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The disclosure is objected to because of the following informalities: The prescribed length of 150 words has been exceeded.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-6, 8-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed toward non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the “progress of science and the useful arts” (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

(A) In this case, claim 8 only recites an abstract idea. The recited steps of accepting booking requests, determining the degree of importance, and denying or permitting the booking request do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. These steps only constitute an idea of how to take a reservation.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention produces a service reservation method.

Although the recited process produces a useful, concrete and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claim 8 is deemed to be directed to non-statutory subject matter.

(B) Similar analysis can be applied to independent claims 1, 3, and 9 and therefore those claims are rejected for the same reasons provided for claim 8 and incorporated herein.

(C) Claims 2-6 inherit the deficiencies of claim 1 via dependency, and are therefore, rejected as well.

(D) Note, it is possible to overcome these deficiencies by simply and expressly stating use of the technological arts (such as a processor) in the body of the claims.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-6, 8-9 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the structural elements of the system and method claims, which provide the interworking relationship between the claimed system “elements” and claimed process steps such as what physical structure exists between the reservation condition element, the acceptance element, the importance degree determining element, and the reservation taking element?

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1, 6-8, 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Campbell et al. (5,918,209).

(A) As per claim 8, Campbell teaches a service reservation method that accepts requests from users for reservations utilizing services (Campbell; col. 8, lines 22-25), comprising;

a) accepting service reservation booking requests from users (Campbell; col. 6, lines 42-50 and col. 8, lines 22-25);

b) determining the marginal value (i.e., degree of importance) of the accepted booking request in accordance with the preset specifications (Campbell; col. 7, line 27 to col. 8, line 2); and

c) denying the acceptance of the reservation request if the marginal value (i.e., degree of importance) of the request is lower than a net revenue (i.e., predetermined standard), and accepting the reservation request if the marginal value (i.e., degree of importance) of the request is not lower than the net revenue (i.e., predetermined standard), (Campbell; Figure 2B, col. 1, lines 15-25, col. 8, lines 20-40), during a period when the demand (81,85) (i.e., load level) is higher than a predetermined level (Campbell; Figures, 7A-7B, , col. 1, lines 50-56).

(B) System claim 1 differs from claim 8, in that claim 8 contains a method recited as a series of function steps whereas claim 1 contains features recited in a “means plus function” format. As the method of step claim 8 has been shown to be disclosed by the teachings of Campbell, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 1 are rejected for the same reasons given for method claim 8 and incorporated herein.

(C) As per claim 6-7, Campbell teaches, the system supplies services according to the accepted reservation using a digital network that transmits information and reservations between users and the system (Campbell; Figures 2A-2B and col. 6, lines 10-60).

(D) Article of Manufacture claim 10 differs from claim 8, in that claim 8 contains a method recited as a series of function steps whereas claim 10 contains features recited in a “means plus function” format. As the method of step claim 8 has been shown to be disclosed by the teachings of Campbell, it is readily apparent that the “means” to accomplish those method steps is obvious

in view of the prior art. As such, the limitations recited in claim 10 are rejected for the same reasons given for method claim 8 and incorporated herein.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. (5,918,209) and Official Notice.

(A) As per claim 2, Campbell teaches a service reservation system where the predetermined standard in which the marginal value (i.e., predetermined importance degree) is a function of, and increases linearly with, the demand curve (i.e., load level) (Campbell; Figure 11A and col. 11, line 22 to col. 13, line 21). It is unclear in Campbell whether the linear relationship of the demand curve to the marginal value is simple proportional relationship. However, it is common practice in the perishable goods industry to create a directly proportional relationship between demand (i.e., load level) and marginal value (i.e., importance degree) for the purposes of estimating materialization and revenue. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a proportional relationship in the linear relationship

of demand to marginal value of Campbell with the motivation of “maximizing profitability in the face of uncertain demand” (Campbell; col. 1, lines 24-25).

12. Claims 3-5, 9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell as applied to claim 1 above, and further in view of Lynch et al. (6,119,094).

(A) As per claim 9, Campbell teaches a service reservation taking method for receiving reservations from users for utilizing services (Campbell; col. 8, lines 22-25), comprising:

a) accepting service reservation booking requests from users (Campbell; col. 8, lines 22-25 and col. 6, lines 42-50);

b) increasing the utilization efficiency of each reservation (Campbell; col. 1, lines 15-25).

However, Campbell does not expressly disclose the preparation of a substitute reservation plan including altering the contents of the reservation in the request so that resource utilization efficiency of the request is increased. Nor does Campbell teach the presenting, accepting, or booking of the substitute plan as in items c, d, and e, respectively below. Lynch teaches preparing a substitute plan (16) in which the contents of the original request is altered (Lynch; Figure 1 and col. 3, lines 40-65).

c) presenting the substitute reservation plan to the user (Lynch; Figure 4, col. 8, lines 55-60);

d) accepting the user’s selection of one of the substitute plans (Lynch; col. 8, lines 60-65); and

e) booking the substitute plan (Lynch; col. 8, lines 60-65).

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It would have been obvious to include the substitute plan preparing, presenting, accepting and booking of Lynch in the efficiency seeking method of Campbell with the motivation of identifying “a plurality of alternate low-cost travel arrangements that may be offered or recommended to a customer submitting a travel request” (Lynch; col. 1, line 67 to col. 2, line 2).

(B) Claim 3 differs from claim 9 in the recitation of “a reservation condition management element adapted to manage accepted reservation of services as reservation condition.” Campbell teaches a reservation system management element adapted to manage accepted reservations (Campbell; col. 8, lines 20-40 and col. 6, lines 10-55). The remainder of system claim 3 differs from claim 9, in that claim 9 contains a method recited as a series of function steps whereas claim 3 contains features recited in a “means plus function” format. As the method of step claim B has been shown to be disclosed or obvious by the combined teachings of Campbell, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 3 are rejected for the same reasons given for method claim 9 and incorporated herein.

(C) As per claims 4-5, Campbell teaches the denial and allowance of the accepted reservation and the increase of resource utilization efficiency of the requested reservation (Campbell; Figure 2B and col. 1, lines 15-25). However, Campbell fails to teach a substitute plan preparation element that prepares a substitute reservation by altering the contents of the reservation request. Lynch teaches preparing a substitute plan (16) in which the contents of the original request is altered (Lynch; Figure 1 and col. 3, lines 40-65). It would have been obvious to include the

substitute plan preparing, presenting, accepting and booking of Lynch in the efficiency seeking method of Campbell with the motivation of identifying “a plurality of alternate low-cost travel arrangements that may be offered or recommended to a customer submitting a travel request” (Lynch; col. 1, line 67 to col. 2, line 2).

(D) Article of Manufacture claim 11 differs from claim 9, in that claim 9 contains a method recited as a series of function steps whereas claim 11 contains features recited in a “means plus function” format. As the method of step claim 9 has been shown to be disclosed or obvious by the combined teachings of Campbell and Lynch, it is readily apparent that the “means” to accomplish those method steps is obvious in view of the prior art. As such, the limitations recited in claim 11 are rejected for the same reasons given for method claim 9 and incorporated herein.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not relied upon art teaches a resource assignment system that combines optimization, artificial intelligence, and constraint processing to arrive at optimal scheduling solutions (5,943,652), a train resource scheduler using expert system that employs simulated annealing techniques to approximate the optimum solution (6,154,735), a scheduling system that schedules trains including offering alternate scheduling if constraints cannot be met (5,794,172), a travel planning system that searches for pricing (efficient) solutions to the destination and

origin constraint (6,295,521), and especially, an airline inventory control system that evaluates each leg of an itinerary to control bookings (5,270,921).

**14. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

(703) 305-7687 [Official communications]  
(703) 746-7238 [After Final communications, labeled "Box AF"]

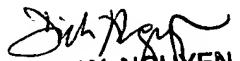
Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7<sup>th</sup> floor receptionist.

**15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet D. Chance whose telephone number is (703) 305-5356. The examiner can normally be reached on M-F 7:30am-4:00pm.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (703) 305-9588. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7687 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

jdc  
January 2, 2003

  
DINH X. NGUYEN  
PRIMARY EXAMINER

## **Recent Statutory Changes to 35 U.S.C. § 102(e)**

On November 2, 2002, President Bush signed the 21st Century Department of Justice Appropriations Authorization Act (H.R. 2215) (Pub. L. 107-273, 116 Stat. 1758 (2002)), which further amended 35 U.S.C. § 102(e), as revised by the American Inventors Protection Act of 1999 (AIPA) (Pub. L. 106-113, 113 Stat. 1501 (1999)). The revised provisions in 35 U.S.C. § 102(e) are completely retroactive and effective immediately for all applications being examined or patents being reexamined. Until all of the Office's automated systems are updated to reflect the revised statute, citation to the revised statute in Office actions is provided by this attachment. This attachment also substitutes for any citation of the text of 35 U.S.C. § 102(e), if made, in the attached Office action.

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102 in view of the AIPA and H.R. 2215 that forms the basis for the rejections under this section made in the attached Office action:

**A person shall be entitled to a patent unless –**

**(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.**

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102 prior to the amendment by the AIPA that forms the basis for the rejections under this section made in the attached Office action:

**A person shall be entitled to a patent unless –**

**(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.**

For more information on revised 35 U.S.C. § 102(e) visit the USPTO website at [www.uspto.gov](http://www.uspto.gov) or call the Office of Patent Legal Administration at (703) 305-1622.